

1 CLAIMS

2 What is claimed is:

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4 1. A method for transferring data between a local device and a remote device
5 over a network, said local device having a communication architecture having at least an
6 application layer and an interceptor layer, said method comprising:

7 receiving by said interceptor layer a first command from said application
8 layer, said first command specifying a first plurality of identifiers wherein said first command
9 is configured to return an associated value for each identifier of said plurality of identifiers;
10 and

11 issuing a second command by said interceptor layer, said second command
12 specifying a second plurality of identifiers wherein said second command is configured to
13 return a next identifier and associated value for each identifier of said another plurality of
14 identifiers in response to said receiving of said first command.

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16 2. The method for transferring data between a local device and a remote
17 device over a network according to claim 1, further comprising:

18 modifying each identifier of said first plurality of identifiers to an associated
19 previous identifier to create said second plurality of identifiers; and

20 issuing said second command specifying said second plurality of identifiers.
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1 3. The method for transferring data between a local device and a remote
2 device over a network according to claim 2, further comprising:

3 receiving a plurality of next identifiers and a plurality of values from said
4 remote device, wherein each next identifier of said plurality of next identifiers has a
5 corresponding value among said plurality of values.

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7 4. The method for transferring data between a local device and a remote
8 device over a network according to claim 3, further comprising:

9 comparing one of said first plurality of identifiers with associated one of said
10 plurality of next identifiers.

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12 5. The method for transferring data between a local device and a remote
13 device over a network according to claim 4, further comprising:

14 updating said associated value of said one of first plurality of identifiers with
15 corresponding value of said associated one of said plurality of next identifiers in response to
16 said one of said first plurality of identifiers being equivalent to said associated one of
17 plurality of next identifiers.

1 6. The method for transferring data between a local device and a remote
2 device over a network according to claim 4, further comprising:

3 updating said one of said first plurality of identifiers as non-available in
4 response to said one of said first plurality of identifiers being less than said associated one of
5 plurality of next identifiers.

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7 7. The method for transferring data between a local device and a remote
8 device over a network according to claim 4, further comprising:

9 issuing another first command in response to said one of said first plurality of
10 identifiers being greater than said associated one of plurality of next identifiers, said another
11 first command specifying said one of said first plurality of identifiers.

1 8. A system for improving reliability of data transfer, said system
2 comprising:
3 an interface;
4 at least one processor;
5 a memory coupled to said at least one processor;
6 an interceptor client residing in said memory and executed by said at least one
7 processor, wherein said interceptor client is configured to receive by said interceptor layer a
8 first command from said application layer, said first command specifying a first plurality of
9 identifiers wherein said first command is configured to return an associated value for each
10 identifier of said plurality of identifiers, and to issue a second command by said interceptor
11 client, said second command specifying a second plurality of identifiers wherein said second
12 command is configured to return a next identifier and associated value for each identifier of
13 said another plurality of identifiers in response to said receiving of said first command.

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15 9. A system for improving reliability of data transfer according to claim 8,
16 wherein said interceptor client further configured to modify each identifier of said first
17 plurality of identifiers to an associated previous identifier to create said second plurality of
18 identifiers, and to issue said second command specifying said second plurality of identifiers.

1 10. A system for improving reliability of data transfer according to claim 9,
2 wherein said interceptor client is further configured to receive a plurality of next identifiers
3 and a plurality of values from said remote device, wherein each next identifier of said
4 plurality of next identifiers has a corresponding value among said plurality of values.

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6 11. A system for improving reliability of data transfer according to claim 10,
7 wherein said interceptor client is further configured to compare one of said first plurality of
8 identifiers with associated one of said plurality of next identifiers.

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10 12. A system for improving reliability of data transfer according to claim 11,
11 wherein said interceptor client is further configured to update said associated value of said
12 one of first plurality of identifiers with corresponding value of said associated one of said
13 plurality of next identifiers in response to said one of said first plurality of identifiers being
14 equivalent to said associated one of plurality of next identifiers.

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16 13. A system for improving reliability of data transfer according to claim 11,
17 wherein said interceptor client is further configured to update said one of said first plurality
18 of identifiers as non-available in response to said one of said first plurality of identifiers being
19 less than said associated one of plurality of next identifiers.

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1 14. A system for improving reliability of data transfer according to claim 11,
2 wherein said interceptor client is further configured to issue another first command in
3 response to said one of said first plurality of identifiers being greater than said associated one
4 of plurality of next identifiers, said another first command specifying said one of said first
5 plurality of identifiers.

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7 15. A computer readable storage medium on which is embedded one or more
8 computer programs, said one or more computer programs implementing a method for
9 improving reliability of data transfer, said one or more computer programs comprising a set
10 of instructions for:

11 receiving by said interceptor layer a first command from said application
12 layer, said first command specifying a first plurality of identifiers wherein said first command
13 is configured to return an associated value for each identifier of said plurality of identifiers;
14 and

15 issuing a second command by said interceptor layer, said second command
16 specifying a second plurality of identifiers wherein said second command is configured to
17 return a next identifier and associated value for each identifier of said another plurality of
18 identifiers in response to said receiving of said first command.

1 16. The computer readable storage medium in according to claim 15, said one
2 or more computer programs further comprising a set of instructions for:

3 modifying each identifier of said first plurality of identifiers to an associated
4 previous identifier to create said second plurality of identifiers; and

5 issuing said second command specifying said second plurality of identifiers.
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7 17. The method for transferring data between a local device and a remote
8 device over a network according to claim 16, further comprising:

9 receiving a plurality of next identifiers and a plurality of values from said
10 remote device, wherein each next identifier of said plurality of next identifiers has a
11 corresponding value among said plurality of values; and

12 comparing one of said first plurality of identifiers with associated one of said
13 plurality of next identifiers.
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15 18. The method for transferring data between a local device and a remote
16 device over a network according to claim 17, further comprising:

17 updating said associated value of said one of first plurality of identifiers with
18 corresponding value of said associated one of said plurality of next identifiers in response to
19 said one of said first plurality of identifiers being equivalent to said associated one of
20 plurality of next identifiers.
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1 19. The method for transferring data between a local device and a remote
2 device over a network according to claim 17, further comprising:

3 updating said one of said first plurality of identifiers as non-available in
4 response to said one of said first plurality of identifiers being less than said associated one of
5 plurality of next identifiers.

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7 20. The method for transferring data between a local device and a remote
8 device over a network according to claim 17, further comprising:

9 issuing another first command in response to said one of said first plurality of
10 identifiers being greater than said associated one of plurality of next identifiers, said another
11 first command specifying said one of said first plurality of identifiers.

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